

AMENDMENTS TO THE CLAIMS

1. (currently amended) A method of speculatively issuing memory requests while maintaining a specified packet order comprising:
 - receiving a first packet and a second packet for forwarding, wherein said first packet is received prior to said second packet;
 - sending a first memory request corresponding to said first packet;
 - sending a second memory request corresponding to said second packet prior to receiving a first memory reply corresponding to said first memory request;
 - forwarding said first packet prior to forwarding said second packet; and
 - receiving a second memory reply prior to forwarding said first packet.
- 2-3. (cancelled)
4. (original) The method as described in Claim 1 wherein said first memory request is to request resource to forward said first packet.
5. (cancelled)
6. (currently amended) The method as described in Claim 1 further comprising receiving said first memory reply prior to forwarding said first packet.
7. (original) The method as described in Claim 1 wherein said first packet comprises an internet protocol packet.
8. (currently amended) A network method comprising:
 - receiving a first packet and a second packet for forwarding;
 - sending a first memory request corresponding to said first packet;
 - sending a second memory request corresponding to said second packet prior to forwarding said first packet; and
 - receiving a second memory reply prior to forwarding said first packet.

9-10. (cancelled)

11. (original) The method as described in Claim 8 wherein said first memory request is to request resource to forward said first packet.

12. (cancelled)

13. (original) The method as described in Claim 8 wherein said first memory reply is received prior to forwarding said first packet.

14. (original) The method as described in Claim 8 wherein said first packet comprises an internet protocol packet.

15. (currently amended) A networking device comprising:

a first packet processor comprising:

an input interface having a port to accept incoming packets;

an input memory coupled to said input interface for temporarily storing said packets in a queue arranged by a receiving order;

a second packet processor comprising:

an output interface having a port to send said packets out of said networking device;

an output memory coupled to said output interface for temporarily storing said packets;

a switching fabric coupled to said first packet processor and said second packet processor for conveying information between said first packet processor and said second packet processor; and

said first packet processor also for sending a memory request corresponding to a first packet which is not at a head of said queue to said second packet processor, said first packet processor also for receiving a memory reply from said second packet processor corresponding to said

memory request for said first packet prior to forwarding a second packet that is ahead of said first packet in said queue.

16. (cancelled)

17. (currently amended) The networking device as described in Claim 16 wherein said first packet processor is also for sending a third packet to said second packet processor, wherein said third packet is at the head of said queue.

18. (currently amended) The networking device as described in Claim 17 wherein said second packet processor is also for receiving said first packet, said second packet and said third packet.

19. (Previously Presented) The networking device as described in Claim 15 wherein said second packet processor is also for sending said first packet out of said networking device.

20. (original) The networking device as described in Claim 15 further comprising a plurality of packet processors in addition to said first and said second packet processors coupled to said switching fabric.

21. (Previously Presented) The networking device as described in Claim 15 wherein said memory request comprises a first portion to indicate that said first packet is not at a head of said queue.

22. (Previously Presented) The networking device as described in Claim 15 wherein said first packet is an internet protocol packet.

23. (currently amended) A networking device comprising:
a means for sending a memory request corresponding to a
second packet prior to sending a first packet, wherein said first packet
is received prior to receiving said second packet; and

a means for receiving a memory reply corresponding to said memory request prior to sending said first packet.

24-26. (cancelled)

27. (original) The networking device as described in Claim 23 wherein said means for sending a memory request further comprises means to request resource to transfer said packet.

28. (original) The networking device as described in Claim 23 wherein said means for sending a memory request further comprises means for accepting a memory reply prior to forwarding said packet.

29. (original) The networking device as described in Claim 28 wherein said means for accepting a memory reply further comprises means to assign network resource to transfer said packet.

30. (original) The networking device as described in Claim 23 wherein said packet is an internet protocol packet.

31. (previously presented) The method as described in Claim 1 wherein said first packet and said second packet are maintained in a transfer order queue.

32. (previously presented) The method as described in Claim 31 wherein said second memory request is sent prior to said second packet moving to a head of said transfer order queue.

33. (previously presented) The method as described in Claim 8 wherein said first packet and said second packet are maintained in a transfer order queue.

34. (previously presented) The method as described in Claim 33 wherein said second memory request is sent prior to said second packet moving to a head of said transfer order queue.

35. (previously presented) The networking device as described in Claim 23 wherein said means for sending a memory request further comprises means for maintaining the transfer order of said first and said second packets.

36. (previously presented) The networking device as described in Claim 35 wherein said means for maintaining the transfer order of said first and said second packets comprises a transfer order queue.

37. (previously presented) The networking device as described in Claim 25 wherein said means for sending a memory request further comprise sending said memory request for said second packet prior to said second packet reaching a head of said transfer order queue.